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Geological Survey

High-resolution seismic-reflection and echo-sounder data from
cruise JENA 91-11 on the south shelf of Puerto Rico --
Isla Caja de Muertos and Salinas to Jobos areas.

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Between November 6 and 21, 1991 the U.S. Geological Survey (USGS) in cooperation with the Puerto Rico Department of Natural Resources (DNR) collected approximately 200 line-miles (370 line-kilometers) of high-resolution single-channel seismic-reflection and 3.5 kHz echo-sounder data on the insular shelf south of Puerto Rico (fig. 1). Line spacing is variable, but one to two nautical miles (1.8 to 3.7 kms) is typical. The survey area is bounded on the west and east by longitudes $66^{\circ}38'W.$ and $66^{\circ}10'W.$, on the north by the coast, and on the south by latitude $17^{\circ}49'N.$ The southern boundary is at or near the shelf edge.

The work was conducted aboard DNR's research vessel, R/V JEAN-A on cruise JENA 91-11. Navigation, with accuracy of between 5 and 10 meters, was provided by Mini-Ranger, a ranging system that utilizes shore-based microwave transponders.

Very good quality data were acquired with both the 3.5 kHz towed echo-sounder and the Huntex seismic-reflection subbottom profiler. Seismic penetration of 0.05 seconds (two-way travel-time) was commonly achieved in areas with unconsolidated sediment.

The original data may be examined in the Data Library at the U.S. Geological Survey, Woods Hole, MA 02543. Microfilm copies of the seismic profile records and trackchart can be purchased only from the National Geophysical Data Center, Code E64, 325 Broadway, Boulder, CO 80303.

